AMENDMENTS TO THE CLAIMS:

The following listing of claims supersedes all prior versions and listings of claims in this application:

1. (Currently Amended) An intermediate node for controlling the treatment of data [[in]] traversing a path across a data network from a provider node to a receiver node, the data network comprising said intermediate node, at least one upstream node, and a plurality of downstream nodes, the or one of the upstream nodes being arranged to provide data to said intermediate node via a portion of the path between the provider node and the intermediate node, the or one of the upstream nodes being arranged to provide path characterisation characterization information to said intermediate node via a portion of the path between the provider node and the intermediate node, said path characterization information being dependent on information fed back from the receiver node to the provider node, and said downstream nodes being arranged to receive data via respective portions of paths downstream from between the intermediate node and the receiver node; said intermediate node comprising:

means for receiving data from an upstream node;

means for receiving path characterisation characterization information from an upstream node, and for deriving therefrom information indicative of a characteristic of a

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portion of the path ~~downstream of said~~ between the intermediate node and the receiver node;

means arranged to select, in dependence on said information indicative of said characteristic ~~of a downstream path~~, a preferred manner of treatment for data to be forwarded ~~on a downstream path~~; and

means for forwarding data to a downstream node according to said preferred manner.

2. (Original) An intermediate node according to claim 1, wherein the selection of a preferred manner of treatment for data to be forwarded on a downstream path relates to selection of a preferred downstream path.

3. (Currently Amended) An intermediate node according to claim 1, wherein the selection of a preferred manner of treatment for data to be forwarded ~~on a downstream path~~ relates to selection of one or more of the following:

(i) traffic engineering;

(ii) route advert verification;

(iii) contract verification;

(iv) differentiated service gateways.

4. (Currently Amended) An intermediate node according to claim 1, wherein the data provided to said intermediate node comprises said path ~~characterisation~~ <u>characterization</u> information.

5. (Currently Amended) An intermediate node according to claim 1, the data network comprising a data channel for the forwarding of data between nodes and a control channel for providing path ~~characterisation~~ <u>characterization</u> information to the intermediate node, wherein the upstream node arranged to provide data to said intermediate node is a node of the data channel, and the upstream node arranged to provide path ~~characterisation~~ <u>characterization</u> information to said intermediate node is a node of the control channel.

6. (Previously Presented) An intermediate node according to claim 1, wherein the intermediate node shares computational resources with an upstream or a downstream node.

7. (Currently Amended) ~~A controlling~~ <u>An</u> intermediate node <u>according to claim 1,</u> ~~for controlling the treatment of data in a data network also comprising a provider node, a~~ ~~receiver node, and at least one other intermediate node, the provider node being~~ ~~arranged to provide data and path characterisation information to at least one of said~~

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~~intermediate nodes or to the receiver node, said other intermediate node or nodes being~~

~~arranged to receive data and forward data and path characterisation information to at~~

~~least a further intermediate node or to the receiver node, and the receiver node being~~

~~arranged to receive data from at least one intermediate node or from the provider node;~~

~~said controlling intermediate node comprising:~~

~~means for receiving data from the provider node or from an intermediate node~~

~~upstream of said controlling intermediate node;~~

~~means for receiving path characterisation information from said provider node or~~

~~from an intermediate node upstream of said controlling intermediate node, and for~~

~~deriving therefrom information indicative of a characteristic of a path downstream of said~~

~~controlling intermediate node;~~

<u>wherein the</u> means arranged to select <u>a preferred manner of treatment for data to</u>

<u>be forwarded comprises means for selecting one of said downstream nodes as a</u>

<u>preferred</u>~~, in dependence on said information indicative of said characteristic of a~~

downstream ~~path, a preferred~~ node ~~from a set of nodes including said other~~

~~intermediate node or nodes and the receiver node~~; and

<u>wherein the</u> means for forwarding data <u>according</u> to said preferred ~~node~~ <u>manner</u>

<u>comprises means for forwarding data to said preferred downstream node.</u>

8. (Currently Amended) A method for controlling the treatment <u>by an intermediate node</u> of data <s>to be forwarded from an intermediate node in</s> <u>of data traversing a path across</u> a data network <u>from a provider node to a receiver node</u>, the data network comprising said intermediate node, at least one upstream node, and a plurality of downstream nodes, the or one of the upstream nodes being arranged to provide data to said intermediate node <u>via a portion of the path between the provider node and the intermediate node</u>, the or one of the upstream nodes being arranged to provide path <s>characterisation</s> <u>characterization</u> information to said intermediate node <u>via a portion of the path between the provider node and the intermediate node, said path characterization information being dependent on information fed back from the receiver node to the provider node</u>, and said downstream nodes being arranged to receive data via <u>respective portions of</u> paths <s>downstream from</s> <u>between</u> the intermediate node <u>and the receiver node</u>; said method comprising <s>the steps of</s>:

the intermediate node receiving data from an upstream node;

the intermediate node receiving path <s>characterisation</s> <u>characterization</u> information from an upstream node, and deriving therefrom information indicative of a characteristic of a <u>portion of the</u> path <s>downstream of said</s> <u>between the</u> intermediate node <u>and the receiver node</u>;

the intermediate node selecting, ~~on the basis of~~ in dependence on said

information indicative of said characteristic ~~of a downstream path~~, a preferred manner of

treatment for data to be forwarded ~~on a downstream path~~; and

the intermediate node forwarding data to a downstream node according to said

preferred manner.

9. (Currently Amended) A method according to claim 8, wherein the step of

selecting a preferred manner of treatment for data to be forwarded ~~on a downstream~~

~~path~~ relates to selecting a preferred downstream path.

10. (Currently Amended) A method according to claim 8, wherein the step of

selecting a preferred manner of treatment for data to be forwarded ~~on a downstream~~

~~path~~ relates to selection of one or more of the following:

(i) traffic engineering;

(ii) route advert verification;

(iii) contract verification;

(iv) differentiated service gateways.

11. (Currently Amended) A method according to claim 8, wherein the data

provided to said intermediate node comprises said path ~~characterisation~~

characterization information.

12. (Currently Amended) A method according to claim 8, the data network

comprising a data channel for the forwarding of data between nodes and a control

channel for providing path ~~characterisation~~ characterization information to the

intermediate node, wherein the upstream node arranged to provide data to said

intermediate node is a node of the data channel, and the upstream node arranged to

provide path ~~characterisation~~ characterization information to said intermediate node is a

node of the control channel.

13. (Previously Presented) A method according to claim 8, wherein the

intermediate node shares computational resources with an upstream or a downstream

node.

14. (Currently Amended) A method according to claim 8, ~~for controlling the~~

~~treatment of data to be forwarded from a controlling intermediate node in a data~~

~~network, said data network also comprising a provider node, a receiver node, and at~~

~~least one other intermediate node, the provider node being arranged to provide data to~~

~~at least one of said intermediate nodes or to the receiver node, said intermediate nodes~~

~~being arranged to receive data and forward data to at least a further intermediate node~~

~~or to the receiver node, and the receiver node being arranged to receive data from at~~

~~least one intermediate node or from the provider node; said method comprising steps~~

~~of:~~

~~receiving data from the provider node or from an intermediate node upstream of~~

~~said controlling intermediate node;~~

~~receiving path characterisation~~ characterization ~~information from said provider~~

~~node or from an upstream intermediate node, and deriving therefrom information~~

~~indicative of a characteristic of a downstream path;~~

<u>wherein the</u> selecting~~, on the basis of said information indicative of said~~

~~characteristic of a~~ <u>step comprises selecting one of said</u> downstream <u>nodes as</u> ~~path,~~ a

preferred <u>downstream</u> node ~~from a set of nodes including said other intermediate node~~

~~or nodes and the receiver node~~; and

<u>wherein the forwarding step comprises</u> forwarding data to said preferred

<u>downstream</u> node.